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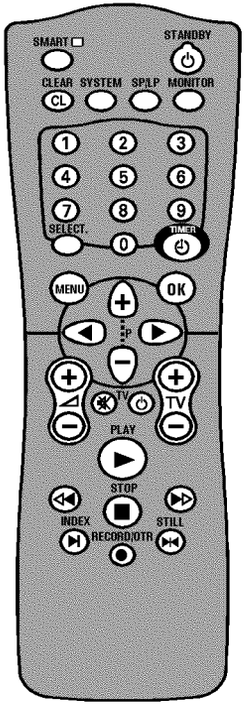
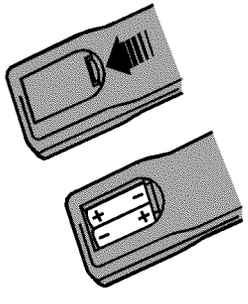
OPERATING INSTRUCTIONS IN BRIEF

The remote control





SMART **SMART**: To adjust the picture setting during playback

STANDBY ⏻ **Switch off** : To switch off set, interrupt menu function, interrupt a programmed recording (TIMER)

CLEAR (CL) **Delete** : To delete last entry/Clear programmed recording (TIMER)

SYSTEM **Special function**: For instance, to switch on the test picture

SP/LP **SP/LP** : To select the recording speed (Long Play/Standard Play)

MONITOR **TV monitor** : To switch between TV reception and VCR playback

0-9 **Number buttons**: 0 - 9

SELECT **Select**: To select a function

TIMER ⏻ **TIMER**: To make a manual TIMER programming with VIDEO Plus+ or to alter or clear a programmed TIMER

MENU **Menu** : To call up or end main menu

OK **Store/Confirm**: To store or confirm entry

◄ **Select**: Cursor left

► **Select**: Cursor right

P + **Select**: One line up

P − **Select**: One line down

PLAY ► **Playback** : To play a recorded cassette

◄◄ **Rewind** : During STOP and STANDBY: rewind, during PLAYBACK: reverse scanning

STOP ■ **Pause/Stop**: To stop the tape, except while a TIMER-recording is being made

►► **Forward wind**: During STOP and STANDBY: forward wind, during PLAYBACK: forward scanning

INDEX ►| **Index search**: In combination with ◄◄ / ►► : to search for previous/next recording on the cassette.

RECORD/OTR ● **Record**: To record the programme selected

STILL ►|◄ **Still picture** : To stop the tape and show a still picture

Additional TV functions

◿ + **TV volume**: TV volume up

◿ − **TV volume**: TV volume down

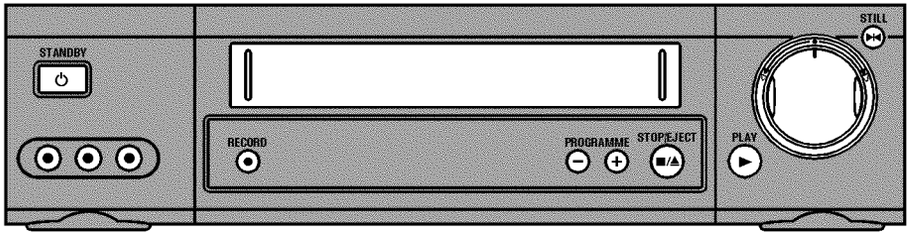
TV 🔇 **TV sound off** : To switch the sound on or off

TV ⏻ **Switch off** : To switch off the TV

TV + **TV Programme number**: TV programme number up

TV − **TV Programme number**: TV programme number down

Front of the set



STANDBY ⏻ **Switch off** : To switch off set, interrupt menu function, interrupt programmed recording (TIMER)

RECORD ● **Record**: To record the programme selected at this moment

PROGRAMME − **Programme number Minus**: Programme number down

PROGRAMME + **Programme number Plus**: Programme number up

STOP/EJECT ■/⏏ **Pause/Stop, eject cassette**: To stop the tape and eject the cassette

PLAY ► **Playback** : To play a recorded cassette

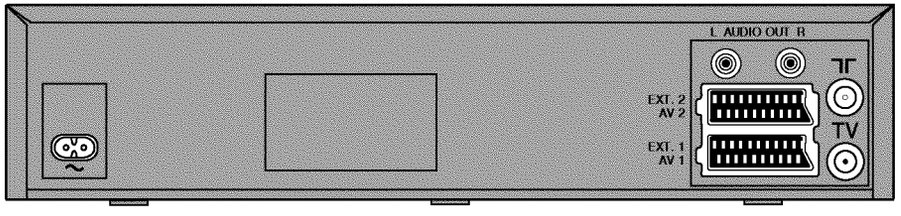
-⏲+ **Rotary control**: Turn left: during STOP and STANDBY: rewind, during PLAYBACK: reverse scanning
Turn right: during STOP and STANDBY: wind, during PLAYBACK: forward scanning

Sockets at the lefthand corner on the front:

White and red socket: Audio input socket left/right : To connect a camera recorder or video recorder (programme number 'E3')

Yellow socket: Video input socket : To connect a camera recorder or video recorder (programme number 'E3')

Back of the set



~ **Mains socket**: To connect the mains cable

L AUDIO OUT R **Audio output socket, left/right** : To connect a HiFi-set

EXT.2 **Scart socket 2**: To connect a satellite receiver, decoder, video recorder, etc. (programme number 'E2')

EXT.1 **Scart socket 1**: To connect the TV set (programme number 'E1')

Aerial input socket: To connect the aerial cable

TV **Aerial output socket**: To connect the TV set

OPERATING INSTRUCTIONS PHILIPS VR605/07, VR607/07

Congratulations! You now own one of the most sophisticated and simple-to-use video recorders (VCR) on the market. With this VCR you can record and play VHS-standard cassettes.

Please take the time to read this operating manual before using your video recorder.

So that you can identify your machine in the event of theft, enter the serial number (PROD.NO) here. The serial number is printed on the type plate fixed at the rear of the set.

MODEL NO.	**VR605/07, VR607/07**
PROD.NO:	

This product complies with the requirements of the Directive 73/23/EEC + 89/336/EEC + 93/68/EEC.

Safety instructions and other notes

Danger: High voltage!
Do not remove the top cover as there is a risk of an electrical shock!

The video recorder does not contain any components that can be repaired by the customer. When the appliance is connected to the power supply there are some components that are constantly operational. To switch off the video recorder completely you must disconnect it from the power supply.

Make sure that air can circulate freely through the ventilation slots on the video recorder.

Make sure that no objects or liquids enter the video recorder. If liquid is spilt into it, disconnect the video recorder immediately from the power supply and call the After-sales Service for advice.

The video recorder should **not be used immediately after transportation** from a cold to a hot area or vice versa, or in conditions of extreme humidity.
After unpacking the video recorder, it should be allowed to **acclimatize for at least three hours** before installation.

These operating instructions have been printed on nonpolluting paper.

Deposit old batteries at the relevant collection points.

Please make use of the facilities available in your country for disposing of the packaging of the video recorder in a way that helps to protect the environment.

This electronic equipment contains many materials that can be recycled. Please inquire about the possibilities for recycling your old set.

VIDEO Plus+ and PlusCode are registered trademarks of Gemstar Development Corporation. The VIDEO Plus+ system is manufactured under licence from Gemstar Development Corporation.

Technical information

Measurements in cm (W / H / D): 38.0 / 9.3 / 26.0
Power consumption (Standby) : less than 6W (Saving energy mode)
Voltage : 220-240V/50Hz
Number of heads : 4 Video / 2 Audio
Winding time: approx. 100 seconds (Cassette E-180)
Recording/Playback time :SP (Standard Play) 4 hours (Cassette E-240) / LP (Long Play) 8 hours (Cassette E-240)

Interference

The Department of Trade and Industry operates a Radio Investigation Service to help TV licence holders improve reception of BBC and ITC programmes where these are being spoilt by interference.
If your dealer cannot help, ask at a Main Post Office for the booklet 'How to Improve Television and Radio Reception'.

List of accessories

- Operating instructions
- Remote control and batteries
- Aerial cable
- Mains cable
- Quick install quide
- Scart cable (AV-Euro cable)
- Cover for the audio/video sockets

Special functions on your video recorder

Digital Studio Picture Control

Philips has developed a system which produces the best possible playback quality. It reduces disturbance on old, worn video cassettes, and emphasises the detail on very good quality cassettes.

Smart Picture

This function allows you to save the playback settings that suit you best. Select your own personal settings for the type of film you are currently watching.

Plug & Play

When you connect your video recorder to your television and plug it into the mains, you will be welcomed with an OSD picture. All you have to do is follow the instructions in the "intelligent help line" for the next step. Enjoy the Automatic TV channel search/save function and the automatic time adjustment.

Multibrand TV control

You can operate the main functions on your television using your video recorder remote control, even if your television is not a Philips one.

2000

We guarantee that your video recorder will switch to the new millennium with no problems whatsoever.

Follow TV

This function automatically transfers all the television channel settings onto your video recorder.

Direct Record

Your video recorder can ascertain which channel is currently playing on your television and record from it at the touch of a button.

VIDEO Plus+

Simple programming system for video recorders. Makes programming as easy as making a telephone call. Simply enter the programme code which you will find in your listings magazine.

TURBO DRIVE

The precision tape drive from Philips with short rewind times and automatic tape length recognition.

1. HOW TO CONNECT YOUR VIDEO RECORDER

Important for the United Kingdom

This machine is fitted with an approved moulded 13 Amp plug. To change a fuse in this type of plug, please follow these instructions.

1 Take off the fuse cover and take out the fuse.

2 Put in a new fuse which should be a BS1362 3A, A.S.T.A. or BSI approved type.

3 Refit the fuse cover.

If the plug fitted is not suitable for your socket, cut it off and fit another type.
If the plug you fit contains a fuse, it should be a 3Amp fuse. If you fit a plug which does not need a fuse, make sure the fuse on your fuse box is not greater than 5 Amps.

Note: Please destroy the plug you have cut off so that it cannot be used in a 13 Amp socket somewhere else.

How to connect a plug
The wires in the lead from the video recorder are coloured as follows.
* Blue - 'neutral' ('N').
* Brown - 'live' ('L').

4 Connect the blue wire to the terminal in the plug which is marked with the letter 'N' or coloured black.

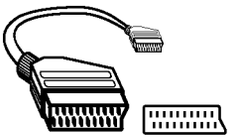
5 Connect the brown wire to the terminal in the plug which is marked with the letter 'L' or coloured red.

6 Do not connect either of the wires to the terminal in the plug which is marked with the letter 'E', the symbol ⏚ or coloured green or green and yellow.

Before you refit the plug cover, make sure that the grip at the bottom of the plug is clamped over the plastic cover of the lead, not just over the two wires.

How to connect your video recorder to the TV set

We recommend the use of a scart cable. This will give you the best picture and sound quality.

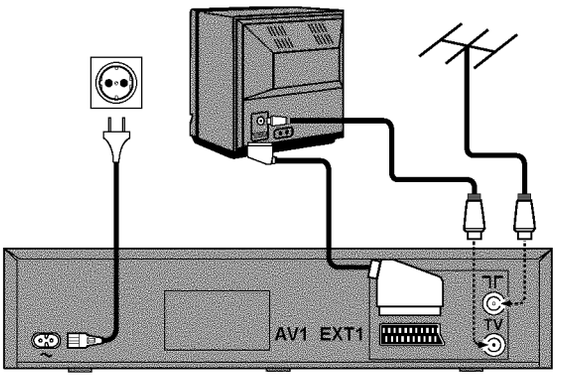


When you install your video recorder for the first time, please read:

☐ If your TV set has a scart socket and you are using a scart cable, please read the section 'Connecting with a scart cable'.

☐ The section 'Connecting without a scart cable', if you are not using a scart cable.

Connecting with a scart cable



1 Switch off the TV set.

2 Remove the aerial cable plug from your TV set and insert it into the TV socket at the back of the video recorder.

3 Plug one end of the aerial cable provided into the TV socket on the video recorder and the other end into the aerial input socket on your TV set.

4 Plug one end of the scart cable into the EXT.1 scart socket at the back of the video recorder and the other end into the scart socket on your TV set (see instruction manual TV set).

5 Switch on the TV set.

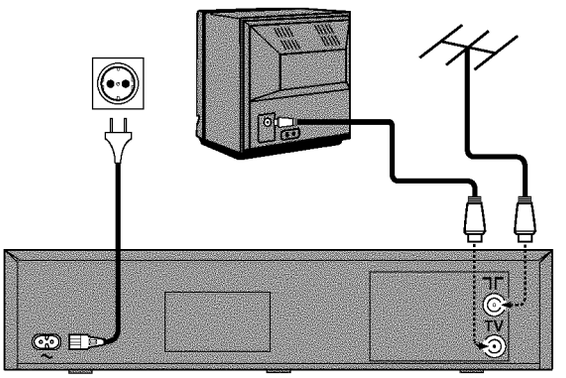
6 Insert one end of the mains cable into the mains socket ~ at the back of the video recorder and the other end into the wall socket.

7 If your TV set **automatically switches** to programme number e.g.: 'EXT', '0', or 'AV', this text will appear on the TV screen:

If your TV set does not switch to programme number e.g.: 'EXT', '0', or 'AV' automatically, select the programme number for the video recorder manually (see instruction manual TV set).

8 Then read 'Initial installation' in chapter 'INSTALLING YOUR VIDEO RECORDER'.

Connecting without a scart cable



1 Switch off the TV set.

2 Remove the aerial cable plug from your TV set and insert it into the socket at the back of the video recorder.

3 Plug one end of the aerial cable provided into the TV socket on the video recorder and the other end into the aerial input socket on your TV set.

4 Insert one end of the mains cable into the mains socket ~ at the back of the video recorder and plug the other end into the wall socket.

5 Switch on your TV set and select the programme number that you have chosen for video playback (see instruction manual TV set).

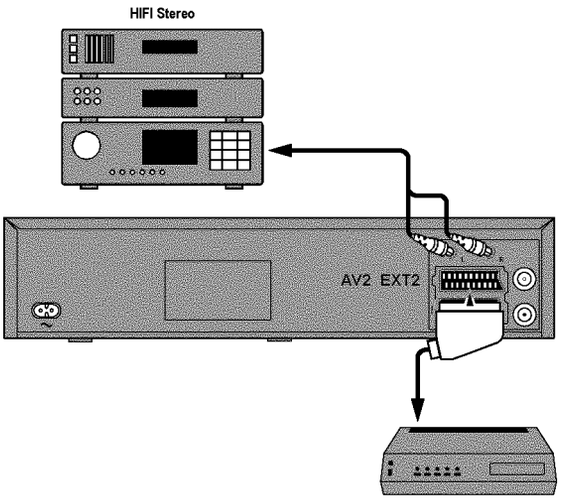
6 Tune in the TV set until this picture appears.

The video recorder will now be sending a welcoming text on channel 35 or 583MHz.

7 When the TV has been tuned read the paragraph 'Initial installation' in the chapter 'INSTALLING YOUR VIDEO RECORDER'.

Connecting a decoder or other equipment

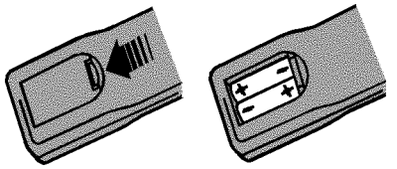
You can connect additional equipment to the EXT.2 socket. For example: a decoder, a satellite receiver or a camera recorder.
You can connect a hifi-stereo set to the socket L AUDIO OUT R (audio output left/right).



2. INSTALLING YOUR VIDEO RECORDER

Initial installation

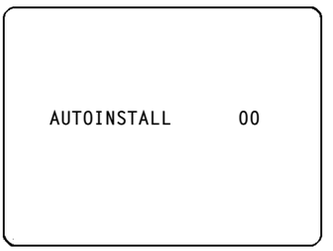
1 Open up the battery compartment of your remote control and place the batteries in it as shown in the picture.



2 Close the battery compartment.

3 Confirm the picture on the TV screen with the OK button on the remote control.

4 If you have connected the aerial to the video recorder, press the OK button. 'Autoinstall' starts. This picture will appear on the screen:



Wait until all TV channels have been found. This can take several minutes.

5 When 'AUTOINSTALL' is complete, 'READY' will appear on the TV screen.

i If the autoinstall procedure is interrupted by the standby button, press the MENU button to obtain the welcome screen again.

6 To end, press the MENU button.
The initial installation is now complete.
Check the time and date. Please read 'Setting the time and date' in this chapter.

i If you have connected a decoder, you must install it as described in the next section.

i If you have connected a satellite receiver, please read the section 'satellite receiver'.

Allocating a decoder

Some TV stations will send coded TV channels, that you can only watch when you use a decoder. You can connect such a decoder (descrambler) to your video recorder. With the following function, the connected decoder will automatically be activated for the TV programme you want to watch.

1 Switch on the TV set. If required, select the programme number for the video recorder.

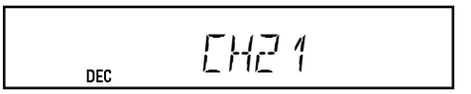
2 Choose the television channel on which you wish to use the decoder with the P+ or P− buttons on the video recorder or the number buttons 0-9 on the remote control.

3 Press the MENU button on the remote control. The main menu will appear.

4 Select the line 'MANUAL SEARCH' with the P+ or P− button.

5 Confirm with the OK button.

6 Press the INDEX▶I button. 'DEC' will appear in the display.



7 Confirm with the OK button.

8 To end, press the OK button again. Then, press the STANDBY ⏻ button.
This channel is now assigned to the decoder.

Manual TV channel search

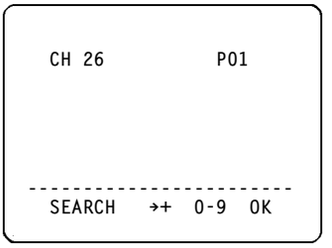
In certain cases the 'Automatic TV channel search' may not be able to find all of the TV channels (e.g. coded TV channels). In that case, use this manual method to set the channels.

> When you search for TV channels manually, you can choose between the indication for 'channel' or 'frequency'. Please read the next paragraph 'Channel number or frequency display'.

1 Switch on the TV set. If required, select the programme number for the video recorder.

2 Press the MENU button on the remote control. The main menu will appear.

3 Select the line 'MANUAL SEARCH' with the P+ or P− button and confirm with the OK button.



4 Hold the P+ button until you have found the right TV channel. A changing channel number or frequency will appear on the screen.

> If you know the frequency or channel number of the desired TV channel, you can enter the information in line with the number buttons 0-9 on the remote control.

> To enter a special/hyperband channel, you must enter a '9' before the first channel digit. The indication changes from 'CH' to 'CA'. For example, for special channel 'S 30', enter '9 30'.

> This video recorder can receive HIFI sound transmissions in 'NICAM'. You can switch 'NICAM' off or on with the SELECT button.

5 Confirm with the OK button.

6 With the P+ or P− button or with the number buttons 0-9, select the programme number you want to give to this TV channel, for instance, 'P01'.

7 Confirm with the OK button.
If you want to allocate more TV channels, repeat steps 4 through 7 .

8 To end, press the STANDBY ⏻ button.

Channel number or frequency display

You can switch between the display for 'channel number' or 'frequency' for manual channel search.

1 Switch on the TV set. If required, select the programme number for the video recorder.

2 Press the MENU button on the remote control. The main menu will appear.

3 Select the line 'CHANNEL/FREQUENCY' with the P− or P+ button and confirm with the OK button.

4 With the P+ button, select 'CHANNEL' or 'FREQUENCY' and confirm with the OK button.

5 To end, press the STANDBY ⏻ button.

Satellite receiver

You can receive channels from the satellite receiver via the scart socket EXT.2 .
To do this, select the channel number 'E2' by pressing the buttons P+ or P− . You will have to select the channels to be received by the satellite receiver on the receiver itself.

Special installation functions

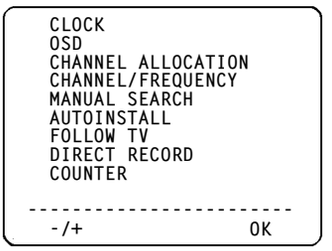
You can select one of the following installation functions in order to adapt the video recorder to your own specific requirements.

Automatic TV channel allocation (Follow TV)

With this function, the video recorder stores the channels in the same order as on the TV set. This only works if the video recorder (socket EXT.1) and the TV set are **connected with a scart cable**. You must **switch off** any equipment connected to socket EXT.2.

1 Switch on the TV set. If required, select the programme number for the video recorder.

2 Press the MENU button on the remote control. The main menu will appear.



3 Select the line 'FOLLOW TV' with the P− or P+ button.

4 Press the OK button. 'TV01' will appear on the video recorder display.

5 Select programme number '1' **on the TV set**.

6 Confirm with the OK button on the video recorder-remote control. The video recorder compares the TV channels on the TV set and the video recorder. If the video recorder found the same TV channel as the TV set, then it stores it at 'P01'.

i When 'NOTV' (no signal from TV set) appears in the display, the TV channels can not be allocated automatically. In this case, read 'Manual TV channel allocation'.

7 Wait until, for example, 'TV02' appears.

8 Select the next programme number, for example, '2' **on the TV set**.

9 Confirm with the OK button on the video recorder-remote control.

i If you allocated the wrong TV channeL, you can go back one step with the CLEAR (CL) button.

10 Repeat steps 7 to 9 until all TV channels have been allocated.

11 To end, press the STANDBY ⏻ button.

Automatic TV channel search (Autoinstall)

The video recorder will search for all TV channels. It stores TV channels found in the following sequence: BBC 1, BBC 2, ITV, CH 4, CH 5, SKY, others.

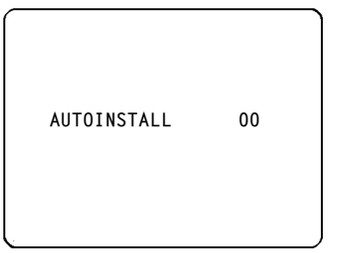
i If you want to start the automatic TV channel search again, then follow the instructions below.

1 Switch on the TV set. If required, select the programme number for the video recorder.

2 Press the MENU button on the remote control. The main menu will appear.

3 Select the line 'AUTOINSTALL' with the P− or P+ button.

4 Press the OK button. The 'Automatic TV channel search' starts.



Wait until all TV channels have been found. This can take several minutes.

5 When Autoinstall is complete, 'READY' will appear on the display.
The time and date information have been set.

How to search for a TV channel manually, you can read in the section 'Manual TV channel search'.

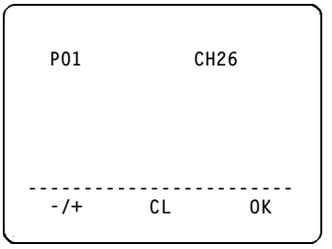
Monitor function

You can switch backwards and forwards between TV picture and video recorder picture with the MONITOR button. But this only works when you use a scart cable to connect the video recorder to your TV set and if your TV set responds to this switch-over.

Sorting and clearing TV channels manually

You can assign any programme number to a TV channel that you have stored and you can also delete unwanted TV channels.

1. Switch on the TV set. If required, select the programme number for the video recorder.
2. Press the MENU button on the remote control. The main menu will appear.
3. Select the line 'CHANNEL ALLOCATION' with P− or P+ button and confirm with the OK button.



4. With the P− or P+ button, select the TV channel to which you want to give a programme number (starting with 'P01').
5. Confirm with the OK button.

   If you want to delete a TV channel, press the CLEAR (CL) button.

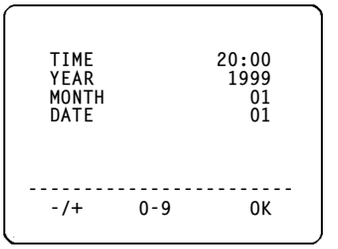
6. Repeat steps 4 to 5 until you have given a programme number to all TV channels.
7. To end, press the STANDBY ⏻ button.

Setting the time and date

If a TV channel which transmits TXT/PDC is stored under programme number 'P01', time and date will automatically be taken from the TXT/PDC information.

If the time in the video recorder display is not correct or if '--:--' appears in the display, please set the clock manually.

1. Switch on the TV set. If required, select the programme number for the video recorder.
2. Press the MENU button on the remote control. The main menu will appear.
3. Select the line 'CLOCK' with the P− or P+ button and confirm with the OK button.



4. Check the time in line 'TIME'. If required, please change the time with the 0-9 buttons on the remote control.
5. Confirm with the OK button.
6. Check 'YEAR', 'MONTH' and 'DATE' in the same way. Confirm each entry with the OK button.
7. To end, press the STANDBY ⏻ button.

3. IMPORTANT NOTES FOR OPERATION

General information

- You can switch on with the STOP■ button, the 0-9 buttons or by putting in a cassette.
- If you do not use the video recorder for a few minutes, it will switch to standby automatically. Please read the section 'Automatic switch-off (tuner mode)' in chapter ADDITIONAL FUNCTIONS.
- If you have switched the video recorder off with the STANDBY⏻ button, the time will show in the display, for instance , '18:00'.
  If the clock has not been set, '- - : - -' will appear.
- Keep your video recorder connected to the mains at all times to ensure that programmed recordings can be made and that the television works normally.
- If the video recorder is not plugged into the mains, it will usually store TV channels for a year, and date and timer information for seven hours.

Saving energy

There are two ways to switch to standby.
Switching to standby with clock display: Switch to standby using the STANDBY⏻ button. The time will be displayed.
To save energy: Press the STANDBY⏻ button twice. The time will disappear from the display.

Emergency interrupt

You can use the STANDBY⏻ button on the video recorder or the remote control to interrupt any function.
So if you are having operating problems, you can just interrupt the function and start again.
And you can practise operating your set without any worries. No matter which buttons you press, you cannot damage it.

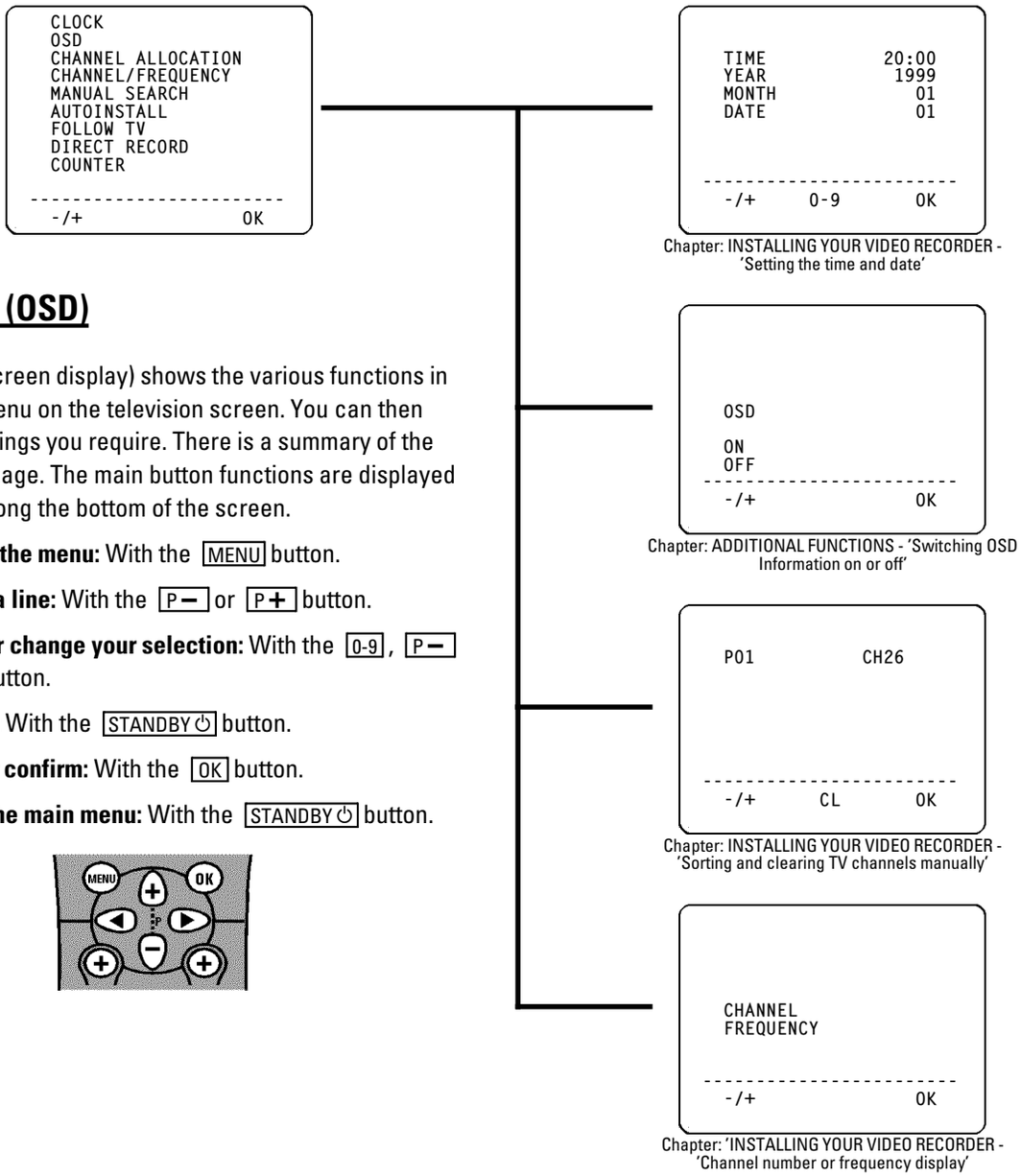
The symbols on your video recorder display

These symbols can light up on your video recorder display:

	This is where the current operating mode is shown as a symbol.
LP	When you play a tape that has been recorded in LP (Long Play).
	When you have switched on the child lock.
	When a satellite recording has been programmed.
DEC	When a decoder has been allocated to the TV channel you have currently selected.
	When you play a cassette that has been recorded with hifi sound, or when a hifi sound is transmitted.
	When you are recording a progamme.
	When you have programmed a recording or when a programmed recording is being made.
D	When you are programming daily recordings.
W	When you are programming weekly recordings.
	When you have put a cassette in the video recorder.
DATE	When the date of the programmed recording is shown.
START	When the start time of the programmed recording is shown.
PROG.	When the programme number of the programmed recording is shown.
END	When the end time of the programmed recording is shown.
VPS/PDC	Video programming system / programme delivery control: when a VPS or PDC code is being transmitted.
	Display of programme number / tape position / channel name / function.
	Tape position in seconds, but only if the display mode 'LINEAR COUNTER' has been selected.

Summary of user guide

The OSD menu offers the following functions. More details on each can be found in the appropriate chapter.



Chapter: INSTALLING YOUR VIDEO RECORDER - 'Setting the time and date'

Chapter: ADDITIONAL FUNCTIONS - 'Switching OSD Information on or off'

Chapter: INSTALLING YOUR VIDEO RECORDER - 'Sorting and clearing TV channels manually'

Chapter: 'INSTALLING YOUR VIDEO RECORDER - 'Channel number or frequency display'

User guide (OSD)

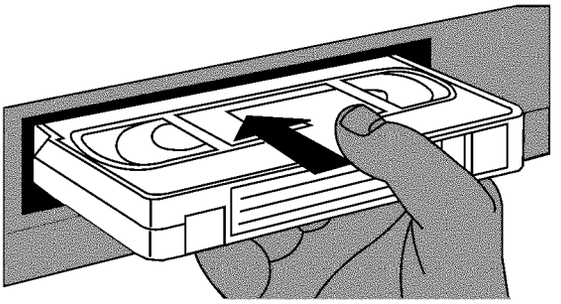
The OSD (On-screen display) shows the various functions in the form of a menu on the television screen. You can then choose the settings you require. There is a summary of the menus on this page. The main button functions are displayed in a help line along the bottom of the screen.

- **To call up the menu:** With the MENU button.
- **To select a line:** With the P− or P+ button.
- **To enter or change your selection:** With the 0-9, P− or P+ button.
- **To cancel:** With the STANDBY ⏻ button.
- **To save or confirm:** With the OK button.
- **To close the main menu:** With the STANDBY ⏻ button.

4. PLAYBACK FUNCTIONS

Playing a cassette

1 Put a cassette into the cassette slot. '📼' will appear on the display.



2 Press the PLAY► button.

3 To stop, press the STOP■ button.

4 To eject the cassette, press the STOP/EJECT■/⏏ button on the video recorder.
To eject a cassette, you can also use the EJECT⏏ button on the remote control.

ⓘ Some functions switch off automatically after a while (for example, pause, still picture, picture search). This helps to protect the cassette and avoids wasting power.

Playing NTSC cassettes

With this set you can playback cassettes that have been recorded on another video recorder in the NTSC standard (for example, American cassettes). But this only works for PAL-television sets which are suitable for a picture frequency of 60 Hz.

ⓘ Some special features (for example, still picture) are not possible while you are playing an NTSC cassette.

Tape position indication

When playing a tape, by pressing the OK button, you can show the present tape position on the TV screen.

You have a choise of selecting 'LINEAR COUNTER' or 'TIME LEFT'. The LINEAR COUNTER shows the tape position in hours, minutes and seconds. This LINEAR COUNTER is reset to 0:00:00 everytime a cassette is inserted even if the tape is not at the beginning. You can also reset to 0:00:00 by pushing the CLEAR (CL) button. 'TIME LEFT' shows the actual amount of playing/recording time left on the cassette in hours and minutes.

ⓘ When you play an NTSC cassette, the video recorder will only show 'LINEAR COUNTER'.

1 Switch on the TV set. If required, select the programme number for the video recorder.

2 Press the MENU button on the remote control. The main menu will appear.

3 Select the line 'COUNTER' with the P+ or P− button and confirm with the OK button.

4 Select the type of counter with the P+ button and confirm with the OK button.

ⓘ To reset the tape position 'LINEAR COUNTER' to '0:00:00', press the CLEAR (CL) button.

5 To end, press the STANDBY⏻ button.

ⓘ This video recorder will automatically recognise the length of the tape.

ⓘ When you put a cassette in the video recorder and you want to see 'TIME LEFT', the video recorder must first calculate the time played. Therefore, '-:--' appears first and only after the tape has been running for a few seconds the playing time will be shown.

ⓘ If the video recorder does not find a recording at a certain tape position with 'LINEAR COUNTER' switched on, the counter will stop.

Searching for tape position with the picture (picture search)

1. While a cassette is playing, press the ◁◀ (reverse) or ▶▷ (forward) button once or several times.

2. To stop a certain place on the tape, press the PLAY► button.

   ⓘ During picture search, the picture quality may not be so good and there will be no sound.

Still picture/Slow motion

1. Press the STILL▶◀ button. A still picture will appear on the screen.

2. Each time you press STILL▶◀ again, the picture will move on one step.

3. When you hold the STILL▶◀ button, the tape will be played in slow motion.

4. When you press the ▶▷ button several times, you have a choice of several playback speeds.
   During slow motion there will be no sound.

The SHUTTLE functions on the video recorder

You will find a large rotary knob (Shuttle) -⊙+ on the video recorder.

1. Switch the function on with the STILL▶◀ button on the video recorder.
   You will see a still picture.

2. The outer (shuttle) ring enables you to select different tape speeds for the picture search.

Searching for tape position without the picture (wind and rewind)

1. Stop the tape with the STOP■ button.

2. Press the ◁◀ (reverse) or ▶▷ (forward) button.

3. To stop a certain place on the tape, press the STOP■ button.

Instant View

With this function you can switch to picture search during wind and rewind.

1. If you hold the ◁◀ (rewind) or ▶▷ (wind) button during wind or rewind, you will switch to picture search.

2. When you release the button, the video recorder will automatically switch back to rewind or wind.

Automatic search for a tape position (index search)

At the start of each recording, the video recorder will write an index code on the tape.

1. Press the INDEX▶I button and then the ▶▷ button to select the next code mark or the ◁◀ button for the previous code mark.

2. When the video recorder finds the code mark, it will automatically switch to play.

Automatic search for a blank space on the tape

You can search for a space on the tape (at least 1 minute of blank tape) for a new recording, for example, after an existing recording on the tape.

1. Press the INDEX▶I button. Then press the STOP■ button.

2. When the video recorder find a blank space, it will automatically switch to 'pause'.

   ⓘ If no empty space has been found when the end of the tape is reached, the cassette will be ejected.

Picture interference

If the picture quality is poor when you play a cassette, please follow these instructions.

Tracking during playback

1 While a cassette is playing, hold the P+ button until 'TRAC' (tracking) appears on the display.

2 Hold the P− or P+ button until the picture quality is at its best.

3 Wait a few seconds, until 'TRAC' disappears from the display. This picture setting will not change until you eject the cassette.

Tracking during still picture

If the still picture vibrates vertically, you can improve the still picture as follows:

1 During still picture, hold the P+ or P− button until the picture quality is at its best.
The video recorder will store this setting automatically.

i Please note, however, that interference may still occur with poor quality cassettes.

Cleaning the video heads

If horizontal lines appear on the screen when you play a cassette, you should clean the video heads.

1 While a cassette is playing, hold the PLAY► button until 'HEAD' appears on the display. The video heads will now be cleaned. The video recorder will automatically switch to play again.

5. MANUAL RECORDING

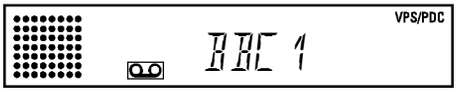
Use 'Manual Recording' to make a spontaneous recording (for example, a programme currently being shown).

- ☐ If you want to start and stop a recording manually, read the section: 'Recording without automatic switch-off'.
- ☐ If you want to start a recording manually but have it stopped automatically, read the section: 'Recording with automatic switch-off'.
- ☐ If you want to record a programme currently being shown, read the section 'Direct record'.
- ☐ If you want a recording to be controlled automatically by a satellite receiver, read the section entitled 'Automatic recording from a satellite receiver'.

Recording without automatic switch-off

1 Insert a cassette.

2 Use the P+ or P− button to select the programme number you want to record, for example, 'P01'. On the display appears:



i When a TV channel transmits a channel name, it will show on the video recorder display.

i Programme numbers 'E1' and 'E2' are for recording from other sources (through scart sockets EXT.1 and EXT.2). Programme number 'E3' is for recording from the front sockets VIDEO and L AUDIO R.

3 To start recording, press the RECORD/OTR● button on the remote control or RECORD● on the video recorder. On the display you will see:

4 Stop recording with the STOP■ button.

Recording with automatic switch-off (OTR one-touch-recording)

1 Put a cassette in the machine.

2 Use the P+ or P− button to select the programme number you want to record.

3 Press the RECORD/OTR● button on the remote control.

4 Press the RECORD/OTR● button again and again until the display on the video recorder shows the desired end time or length of the recording.

i To cancel this information, press the CLEAR (CL) button.

Protecting your recordings

So that you don't accidentally delete an important recording, remove the special tab on the narrow side of the cassette with a screwdriver or slide the special tab to the left. Later, if you no longer want to protect your recording, you can seal the gap again with sticky tape or slide the special tab to the right.

Auto-assembling

You can use the auto-assembling function to join individual recordings without any major picture disturbance between them.

1 While the cassette is playing, search for the correct position on the tape.

2 Stop the cassette by pressing the STOP■ button. '**II**' will appear in the display.

3 Now start recording as usual by pressing the RECORD/OTR● button on the remote control.

Selecting the recording speed (SP or LP)

You can reduce the recording speed by half. This makes it possible to record, for example, eight-hours instead of four-hours on an 'E240' (four-hour) cassette.

1 Switch on the TV set and, if required, select the programme number for the video recorder.

2 With the video recorder switched on, and **before you start recording**, select the recording speed with the SP/LP button. On the video recorder display you will see:
'LP': **L**ong **P**lay = half recording speed (double recording time).
'SP': **S**tandard **P**lay = normal recording speed.

i The picture quality may suffer when you record at half speed (LP).

i When you play back your recording, the machine will automatically select the correct speed.

Automatic recording from a satellite receiver (SAT RECORDING)

You can only use this function, when you have a satellite receiver which can control other equipment by a 'programming' function.

1 Use a scart cable to connect the scart socket EXT.2 to the scart socket on the satellite receiver.

2 Put a cassette in the machine. Switch off with the STANDBY ⏻ button on the remote control.

3 Hold the MONITOR buton on the remote control, until 'SAT.P' appears on the video recorder display.
The video recorder is now ready to record. The EXT.2 plug controls the start and the end of the recording.

i When this function is switched on and the video recorder is switched off, '🔕' appears on the video recorder display.

i If you want to cancel this function **before** the recording has started, you must hold the MONITOR button until 'SAT.P' disappears.

i If you want to cancel this function **while** a programme is being recorded, press the STANDBY ⏻ button on the remote control.

Switching on 'Direct Record'

When this function is switched on, the video recorder will automatically record the programme selected on the television by means of a scart cable.

i **The video recorder must be switched off** .

1 Switch on the TV set and select the programme number for the video recorder.

2 Press the MENU button on the remote control. The main menu will appear.

3 Select the line 'DIRECT RECORD' with the P− or P+ button.

4 Confirm with the OK button.

5 Select the function 'ON' with the P+ button. If you select 'OFF', the function will be switched off.

6 Confirm with the OK button.

7 On the TV set, select the programme number you want to record from.

8 Press the RECORD/OTR● button with the video recorder **switched off**.

i Don't select another programme number on your TV set, until the 'search symbol' on the video recorder display has disappeared. This can take up to one minute.

i If 'NOTV' appears on the video recorder display, this means the video recorder cannot find this programme number. In this case, read the section 'Recording without automatic switch-off'.

6. PROGRAMMED RECORDING (TIMER)

Use programmed recording to automatically start and stop a recording at a later date.

To make a programmed recording, your video recorder needs to know:

* the date you want to make the recording;
* the programme number for the TV channel you want to record;
* the start and stop time of the recording;
* whether you want to use VPS or PDC

The video recorder stores all the information in a TIMER block. You can programme up to 6 TIMER blocks a month in advance.

'VPS' (Video Programming System) and 'PDC' (Programme Delivery Control) (UK)

With 'VPS and PDC', the TV station controls the start time and the length of the recording. This means that the video recorder switches itself on and off at the **right time** even if a TV programme you want to record begins earlier or finishes later than expected.
You must enter the start time **exactly to the minute**.
If you want to programme a time that is different from the VPS or PDC time, you must switch off VPS or PDC.

Programming a recording (with 'VIDEO Plus+')

All the information required for a programming is contained in the PlusCode-programming number.

VIDEO Plus+

1 Switch on the TV set and select the programme number for the video recorder.

2 Press the TIMER button on the remote control.

3 Enter the entire PlusCode-programming number (up to 9 digits) printed in your TV guide next to the start time of a TV programme.
For example, 5-234-89 or 5 234 89
Enter 523489 for the PlusCode-programming number.
If you make a mistake, you can clear your instructions with the CLEAR (CL) button.

```
VIDEOPLUS

        53124----

ONCE

------------------------
D/W→SELECT    CLEAR  →CL
0-9                   OK
```

4 Use the SELECT button to select daily or weekly programming.
'D': recordings every day from Monday to Friday.
'W': recordings every week on the same day of the week.

5 Confirm with the OK button. Your programming details will then appear on the TV screen.

```
DATE PROG START V/P END
01    01  20:00    21:30




------------------------
CHANGE →TIMER CLEAR  →CL
V/P       →   SELECT  OK
```

i You need to confirm the programme number the first time you programme the video recorder with VIDEO Plus+.

i If VIDEO Plus+ does not recognise the TV channel, 'SELECT PROG' will appear on the TV screen. Instead of 'E2', you can select the programme number you want with the number buttons 0-9 and confirm with the OK button.

i If 'CODE ERROR' appears on the TV screen, this means you entered an incorrect PlusCode number or the incorrect date. Correct your instructions or end with the STANDBY ⏻ button.

i If 'DAILY ERROR' appears on the TV screen, the date was incorrectly entered. Daily programming can only be used for recordings to be made from Monday to Friday.

i Use the SELECT button to switch 'VPS/PDC' on or off.

If you want to set a later end time for a recording, press the P+ button. Each time you press the P+ button, you will add 15 minutes to the end time.

6 Confirm with the OK button when the information is correct.

The programming information has been stored in a TIMER block.

7 Select the recording speed SP or LP with the SP/LP button.

8 Make sure that the cassette you have put in can be recorded on.

9 Switch off with the STANDBY ⏻ button.
The programmed recording will only function when the video recorder is **switched off** with the STANDBY ⏻ button.

If any of the TIMER blocks are in use, '⏻' will light up on the video recorder display.

While a programmed recording is being made, you cannot operate your video recorder manually. If you want to cancel the programmed recording, press the STANDBY ⏻ button.

If the video recorder is switched on a few minutes before a programmed recording is supposed to begin, 'TIMER RECORD' will flash on the TV screen.

If you reach the end of the cassette during a recording, the video recorder will automatically eject the cassette.

If you forget to load a cassette, 'NO CASSETTE' will appear on the TV screen and '⏻' will flash on the video recorder display.

If you have put in a cassette which cannot be used for recording, the video recorder will automatically eject it.

If 'TIMER FULL' appears on the TV screen when you press the TIMER button, you have used up all the available TIMER blocks. If you want to clear or check a TIMER block, select it with the P+ or P− button.

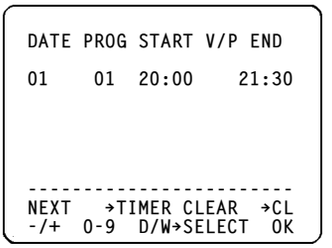
Programme numbers 'E1' and 'E2' are for recordings from other sources (through scart socket EXT.1 or EXT.2).

Programming a recording (without 'VIDEO Plus+')

1 Switch on the TV set and select the programme number for the video recorder.

2 Press the TIMER button on the remote control **twice** .

3 Select a free TIMER block with the P+ or P− button. Press the TIMER button.



4 With the TIMER , ▶ or ◀ button you can select 'DATE' (date), 'PROG' (programme number), 'START' (start time) and 'END' (end time).
Enter or change your information with the P+ or P− button, or with the number buttons 0-9 .

i Under 'DATE', use the SELECT button to select daily or weekly programming.
'D': Recording from Monday to Friday.
'W': Recordings every week on the same day.

i Under 'START', use the SELECT button to switch 'VPS or PDC' on or off.

5 Confirm with the OK button when the information is correct.

i The programming information has been stored in a TIMER block.

6 Make sure that the cassette you have put in can be recorded on.

i Use the SP/LP button to select the recording speed 'SP' or 'LP'.

7 Switch off with the STANDBY ⏻ button.
The programmed recording will only function when the video recorder is **switched off** with the STANDBY ⏻ button.

i If any of the TIMER blocks are in use, '⏻' will light up on the video recorder display.

i While a programmed recording is being made, you cannot operate your video recorder manually. If you want to cancel the programmed recording, press the STANDBY ⏻ button.

i If the video recorder is switched on a few minutes before a programmed recording is supposed to begin, 'TIMER RECORD' will flash on the TV screen.

i If you reach the end of the cassette during a recording, the video recorder will automatically eject the cassette.

i If you forget to load a cassette, 'NO CASSETTE' will appear on the TV screen and '⏻' will flash on the video recorder display.

i If you have put in a cassette which cannot be used for recording, the video recorder will automatically eject it.

i If 'TIMER FULL' appears on the TV screen when you press the TIMER button, you have used up all the available TIMER blocks. If you want to clear or check a programmed recording (TIMER block), select it with the P+ or P− button.

i Programme numbers 'E1' and 'E2' are for recordings from other sources (through scart socket EXT.1 or EXT.2).

How to check or change a programmed recording (TIMER)

1. Switch on the TV set and select the programme number for the video recorder.
2. Press the TIMER button on the remote control **twice**.
3. Select the programmed recording (TIMER) you want to check or change with the P+ or P− button.
4. Press the TIMER button.
5. Select the entry field with the ◄ or ► button.
6. Change any information with the P− or P+ button or with the 0-9 buttons.
7. Confirm with the OK button.
8. Make sure that the cassette you have put in can be recorded on. Switch off with the STANDBY ⏻ button.

   The programmed recording will only function when the video recorder is **switched off** with the STANDBY ⏻ button.

   The video recorder will always record the programmed recording at the speed you have selected **before** the recording starts.

How to clear a programmed recording (TIMER)

1. Switch on the TV set and select the programme number for the video recorder.
2. Press the TIMER button on the remote control **twice**.
3. Select the programmed recording (TIMER) you want to clear with the P− or P+ button.
4. Press the CLEAR (CL) button.
5. Confirm with the OK button.

7. ADDITIONAL FUNCTIONS

Child lock

This function will prevent unauthorised use of your video recorder. All button-functions will be locked.

> You can make programmed recordings while the child lock is on.

1 With the video recorder switched on, press the STANDBY ⏻ button on the remote control.
'🔑' will appear on the video recorder display.
Keep the remote control in a safe place.

2 If you want to switch off the child lock, press the STANDBY ⏻ button again.
'🔑' will disappear from the video recorder display.

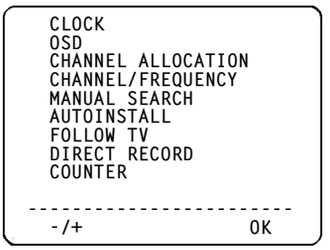
> If you press a button when the child lock is on, '🔑' will flash on the display for a few seconds.

Setting the on-screen display (OSD)

You can switch the on-screen display of the current operating information on or off.

1 Switch on the TV set and select the programme number for the video recorder.

2 Press the MENU button on the remote control. The main menu will appear.



3 Select the line 'OSD' with the P− or P+ buttons and confirm with the OK button.

4 Select one of the options shown with the P+ button.
'ON': Shows the OSD for a few seconds only.
'OFF': Switches off the OSD.

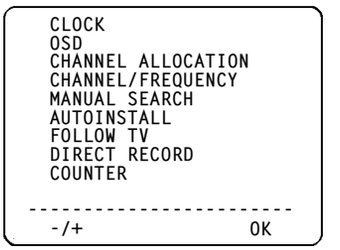
5 Confirm with the OK button.

Switching the remote control command

If you have two video recorders with the same remote control command, you can change the remote control command of the remote control for one of the video recorders.

1 Switch on the TV set and select the programme number for the video recorder.

2 Press the MENU button on the remote control. The main menu will appear.



3 On the remote control, press the SELECT button and button 2 at the same time, to switch the remote control to VCR 2.

> If you want to switch back to VCR 1, press the SELECT button and button 1 at the same time.

4 Confirm with the OK button.
On the TV screen, for example, VCR 2 OK will appear.
Then the video recorder automatically switches off.

> If you change the batteries of the remote control, it will switch back to VCR 1.

Continuous playback

You can automatically play a cassette again and again. When the video recorder reaches the end of the tape or the end of the recording, it will rewind and start again.

1 Put a cassette in the machine.

2 Press the PLAY ► button.

3 Press the MONITOR button on the remote control and the PLAY ► button on the video recorder at the same time .
On the video recorder display you will see:

4 If you want to cancel continuous playback, repeat step 3 .

> During continuous playback, no other button will work. After a power failure, playback will automatically start again.

Automatic switch-off (tuner mode)

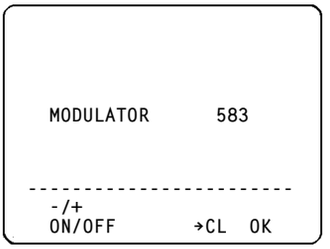
If you do not use the video recorder for a few minutes in certain modes (e.g.: STOP), it will switch to standby automatically. You can cancel this function to use the video recorder as a television receiver (tuner).

1. Hold the STOP ■ button until [] appears on the video recorder display.
2. Select the programme number you want with the P − or P + button or with the number buttons 0-9.
3. Switch off the video recorder with the STANDBY ⏻ button, if you no longer want to watch TV.

Reducing picture disturbance ('optimizing the modulator')

You may experience picture disturbance if you have not used a scart cable to connect your video recorder and TV. This is because another TV station in your reception area may already be using UHF-channel CH35 or 583MHz.

1. Make sure that there is **no** cassette in the video recorder. On the video recorder, hold the SYSTEM button for a few seconds until e.g.: 'M583' (583Mhz/channel 35) appears in the display. The video recorder transmits a test picture on this UHF-channel (or this frequency).



   When you press the ▶▷ button, the video recorder will search for the next modulator frequency.

2. Confirm the new modulator frequency with the OK button.
3. Tune in the TV set to this channel or frequency.
4. To end, press the STANDBY ⏻ button.

Switching off the modulator

If you cannot clear picture or sound interference, you can switch off the built-in modulator.
You should only do this if you have connected the video recorder to the TV set with a scart cable. 'Connecting VCR without scart cable' is not possible when the modulator is switched off.

1. Switch on the TV set and select the programme number for the video recorder.
2. Make sure that **no** cassette is in the video recorder. On the video recorder, press the SYSTEM button for several seconds, until, for example, 'M583' appears on the video recorder display.
3. Confirm the new modulator frequency with the OK button.
4. Tune in the TV set to this channel or frequency.
5. To end, press the STANDBY ⏻ button.
6. Hold the CLEAR (CL) button, until 'MOFF' (modulator off) appears on the video recorder display. If you want to switch the modulator on again, hold the CLEAR (CL) button, until 'M583' (Modulator switched on) appears on the display.
7. To end, press the STANDBY ⏻ button.

Selecting the sound track

You can select the sound track you want to record. This is especially useful if the programme is multilingual.

1 Press the SELECT button. The current setting will appear on the TV screen.

2 By pressing the SELECT button several times you can select from the four possibilities displayed ('STEREO', 'RIGHT', 'LEFT', 'MONO').

i While a tape is playing, you can select a fifth possibility: the 'MIXED' mode. In this mode you can play the mono sound of the normal (linear) audio track together with the sound of the stereo audio track. You can play casettes that have been dubbed on another video recorder.

i If there is no stereo sound recorded on the cassette, the video recorder will automatically switch to mono sound.

Using your video recorder remote control with your TV set

Your video recorder remote control can transmit several commands to TV sets of different makes.
By using the **TV** buttons on the panel in the middle of the control, you can:

- ◿+ increase the TV volume
- ◿− reduce the TV volume
- TV 🔇 switch off sound
- TV ⏻ switch off the TV set
- TV + next programme number
- TV − previous programme number

1 Hold the TV ⏻ button and enter the correct remote control command with the digit buttons 0-9.
You will find a list of all available remote control commands on the last page of this manual.

i If the selected code does not work with your TV set, or if the make of your TV is not in the list, you can try out the codes one after the other.

8. Before you call an engineer

If, contrary to expectation, you have any problems using this video recorder, it may be caused by one of the reasons mentioned below. You can also call the **customer service centre** in your country.
You will find the phone number in the enclosed guarantee leaflet.

Your video recorder does not respond to any button being pressed:
- There is no power supply: check the power supply
- A programmed recording is currently being made: cancel the programmed recording with the STANDBY ⏻ button.
- Continuous playback is on: switch the continuous playback off.
- There is a technical problem: switch off the mains power supply for 30 seconds, then switch it on again. If this does not have any effect, you can:
  1. Switch off the mains power supply again.
  2. Then switch it on **whilst holding down** the STANDBY ⏻ button on the video recorder.
  3. Release the button when 'MENU' appears on the video recorder display. All the information stored (TV channels, time and date, TIMER) will be cleared.

Cassette is jammed in the video recorder:
- Don't use force. Pull out the mains plug for a moment.

Remote control does not work:
- Remote control not pointed toward the video recorder: point it at the video recorder.
- Batteries have run out: change the batteries.
- You have given the wrong remote control command: read 'Switching remote control command' in chapter 'Additional functions'.

No picture when you play a cassette:
- There is no recording on the cassette: change the cassette.
- You have chosen the wrong programme number on the TV for playing cassette: on the TV, select the correct programme number for the video recorder.
- The cable connecting the TV set and the video recorder has come loose: check the cable.

Poor picture quality when you play a cassette:
- Your TV set is not properly adjusted.
- The cassette badly worn or of poor quality: use new cassette.
- Tracking is not properly adjusted or the video heads are dirty: turn to chapter 'PLAYBACK' and read the section 'Cleaning the video heads'.

The video recorder will not record:
- The TV channel you want to record is not stored or you selected the wrong programme number: check TV channels stored.
- You have loaded a cassette which cannot be recorded on: undo the erase protection on the cassette.

Programmed recording does not work:
- You have not set the TIMER properly: check the TIMER blocks.
- You have programmed the wrong time or date: check time and date.
- You have put in a cassette that cannot be recorded on: undo the erase protection on the cassette.
- 'PDC' or 'VPS' switched on but 'PDC/VPS time' wrong: enter PDC or VPS time exactly to the minute. Have your aerial checked.
- After a 'programmed recording with 'VIDEO Plus+' the programme number of the TIMER block will not agree with the required programme number: when you have confirmed the PlusCode programming number, confirm the TIMER block by pressing the TIMER button. Then change the programme number displayed in the 'PROG' entry field and confirm by pressing the TIMER button.

There is picture or sound interference on TV reception:
- Turn to chapter 'ADDITIONAL FUNCTIONS' and read 'Poor TV reception - optimising the modulator' and 'Switching off the modulator'.
- Have your aerial checked.

9. GLOSSARY

Technical terms used

Current tape position : The part of the tape currently being played.
External source : A device connected via a socket (for example, scart socket) which is transmitting audio/video signals to the video recorder.
Index marking : A marking which is automatically made on the tape at the beginning of every recording. This marking (recording ID) can be searched for with the Index search function.
Scart cable : Also known as a Euro-AV cable. This standard cable is an easy method of connecting various audio and video devices, computer screens and televisions. Other signals in addition to audio and video signals can be transmitted on it.
TV system : There are various systems for transmitting television signals, for example, PAL, SECAM, PAL BG, SECAM DK, SECAM L/L, NTSC etc. The system used by your television depends on which country you are in.
TXT : Also known as Teletext, Fasttext, Videotext, FLOF etc.
OTR : One touch recording. This function enables you to select the switch-off time in intervals of 30 minutes.
Modulator : An electronic component in a video recorder which allows audio and video signals to be transmitted via the aerial cable. Your television receives the signal in the same way as a signal from a television station.
Modulator frequency : This frequency or channel indicates the frequency or channel on which the audio or video signal is transmitted.
UHF frequency range : Channels 21 to 69. The video recorder 'broadcasts' on channel 35/frequency 583 MHz. This frequency or channel can be changed. See the section 'Reducing picture disturbance ('optimizing the modulator').
OSD (On-screen display) : The largest possible display area for the video recorder - the screen on your television set.

Remote codes

Acura	02
Adyson	5, 20
Akai	18, 33
Akura	21, 25
Alba	02, 07, 21
Allorgan	28
Amplivision	20
Amstrad	02
Anitech	02
Arcam	19, 20
Asuka	21
Audiosonic	15
BPL	26
BSR	28
BTC	21
Basic Line	02, 21
Baur	03, 33
Beko	35
Binatone	20
Blaupunkt	17
Blue Sky	21
Blue Star	26
Bondstec	23
Boots	20
Brandt	15
Britannia	19
Bush	02, 07, 21, 26, 28, 36
CGE	23
CS Electronics	19
CTC	23
Carrefour	07
Cascade	02
Cimline	02
Clatronic	23, 35
Condor	30, 35
Contec	02, 07, 19
Crown	02, 35, 38
Cybertron	21
Daewoo	02, 36
Dainichi	21
Dayton	02
De Graaf	18
Decca	10
Dixi	02
Dual Tec	20
Elite	21, 30
Elta	02
Emerson	33
Ferguson	15
Fidelity	19, 33
Finlandia	18, 32
Finlux	10, 13, 32
Firstline	02, 19, 20, 23, 28, 31
Fisher	18, 20, 35
Formenti	30
Frontech	23, 25
Fujitsu	10
Funai	25, 28
GEC	10, 20
GPM	21
Geloso	02
Genexxa	21
GoldStar	15, 20, 27
Goodmans	07, 10, 20, 29, 36
Gorenje	35
Graetz	33
Granada	10, 18, 20
Grandin	26
Grundig	17
HCM	02, 26
Hanseatic	01, 30, 33
Hinari	02, 07, 21
Hisawa	26
Hitachi	05, 07, 08, 13, 15, 20, 22
Huanyu	19, 36
Hypson	25, 26
ICE	20, 25
ICeS	21
ITT	33
Imperial	23, 35, 38
Inno Hit	10
Interfunk	23, 33
Intervision	12, 20, 25
Isukai	21
JVC	07, 09
Kaisui	02, 19, 20, 21, 26
Kathrein	01
Kingsley	19
Koyoda	02
Leyco	10, 25, 28
Lloytron	05
Luxor	33
M Electronic	02, 13, 15, 20, 32, 36, 41
Magnadyne	12, 23
Magnafon	12
Manesth	20, 25, 30
Marantz	01
Matsui	02, 04, 06, 07, 10, 18, 20, 28
Memorex	02
Metz	34
Mitsubishi	07, 14, 16
Mivar	19, 27
Multitech	02, 12, 19
Neckermann	01
Nikkai	05, 06, 10, 19, 21, 25
Nobliko	12
Nokia	33, 41
Nordmende	15
Oceanic	33
Orion	28, 30, 31
Osaki	05, 10, 20, 21, 25
Oso	21
Osume	05, 10
Otake	29
Otto Versand	01, 03, 07, 20, 30
Palladium	35, 38
Panama	20, 25
Panasonic	24, 34
Pathe Cinema	19, 30
Pausa	02
Perdio	30
Phase	05
Philco	23
Philips	01, 36
Pioneer	15
Profex	02, 33
Proline	31
Protech	02, 12, 20, 23, 25, 38
Quelle	03, 04, 33
Questa	07
Rank Arena	07
Rediffusion	33
Rex	25
Roadstar	02, 21, 25, 38
SEG	07, 20, 25
SEI	12, 28
Saba	15
Saisho	02, 04, 25
Salora	33
Sambers	12
Samsung	01, 02, 20, 25, 27, 35
Sandra	19
Sanyo	04, 07, 10, 18
Schaub Lorenz	33
Schneider	21, 23, 37
Sei-Sinudyne	03
Sentra	06
Sharp	07, 11
Shorai	28
Siarem	12
Siemens	17
Silver	07
Sinudyne	12, 28
Solavox	05
Sonitron	18
Sonoko	02
Sonolor	18
Sony	03, 04, 07
Soundwave	38
Standard	02, 20, 21
Sunkai	28, 31
Susumu	21
Tandy	10, 20, 21
Tashiko	07, 20
Tatung	10, 20
Tec	20, 23
Technema	30
Technics	24
Telefunken	15
Telemeister	30
Teletech	02
Teleton	20
Tensai	21, 28, 29, 30
Texet	19, 21
Thomson	15
Thorn	06, 10, 33
Tomashi	26
Toshiba	06, 07
Uher	30
Ultravox	12
Universum	13, 25, 32, 35
Videosat	23
Videotechnic	20
Visa	02
Vision	30
Waltham	20
Watson	30
Watt Radio	12
Wega	07
White Westinghouse	19, 30
Yoko	20, 25